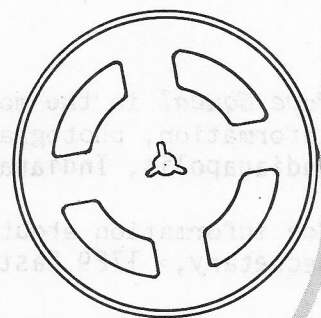


# TAPE SQUEAL



INDIANA RECORDING CLUB, INC.

Volume XXIII--Number 4: April, 1982

## TECHNICAL NOTES

Gene Eaton

The condenser is one of the older forms of transducers developed and used on microphones. The one virtue it offered was an extremely good high frequency response, reaching up into the ultra-sonic range of 30,000 plus cps. The low frequency response fell off badly from 2,000 cps down. Construction was very simple as it consisted of a back plate and a very thin aluminum diaphragm, tautly held and spaced 1/16th inch from the plate. The whole was enclosed in a cannister with a port, insulated, of course. To operate this, a polarizing voltage of 100-300 volts was required, and a very short cable or link to the first amplifier stage.

Since the signal level developed was extremely small, it required four stages of amplification to bring up to a level sufficient for manageable handling. This made a very bulky unit which was extremely delicate to use. A jar of a heavy breath would make the voltage arc and, of course, wreck the mike, so much care in usage was needed. Small or miniature tubes for the amplifier did not exist so a large container was needed and also heavy power packs to supply all the needed voltage.

The many disadvantages outweighed the few advantages, so it was never in common usage.

After much experimentation with condenser mikes it was found that by increasing the scale of size, clamping the diaphragm differently, and increasing the airdielectric gap that a mike could be made and used without the arcing, and increased total frequency range produced. A sturdy steel or, preferably, brass plate about 3 to 8 inches high and 1½ to 3 inches

wide was perforated with evenly distributed holes. Similar sized aluminum foil was prepared with evenly spaced slits down the length and across the width, leaving enough material at both ends for clamping into insulated blocks both top and bottom, snugly but not taut. One end was cased and the other covered with a shaped heavy wire screen with cloth backing. Polarized with from 250 to 600 volts and coupled by a low loss cable to a high gain amplifier, the range of frequency from this mike ran from 100 cps to over 20,000 cps with a reasonable curve. Voice pickup from with side was very good. But again, a very bulky unit with a rather large weight resulted, and was still easily damaged if not used correctly.

Radio broadcasting used these "ribbon" mikes as standard from the late 1920's till well past WW2, then shifted to the use of the dynamic type.

With two developments in the past 20 years the condenser has come full circle and become a very good unit. The first of these developments was a plastic that would develop and hold a relatively high static charge. Use of this as a backplate eliminated the need for an outside-supplied polarizing voltage with its associated problems of insulation and arc over. The plastic dielectric, when fitted with a thin aluminum diaphragm, supplied the polarized field for use. The second item was the transistor development which reduced the size of the amplifier and its power need.

Thus was achieved a microphone of small size with all the advantages of the condenser and none of the problems. Further development produced the IC chip and again reduced the amplifier size and power needs to where

(continued on track 3)

*Tape Squeal* is the monthly newsletter of the INDIANA RECORDING CLUB. Send all news information, photographs, etc. to: Sharon Moore, editor, 4215 North Oxford Street, Indianapolis, Indiana 46205.

For information about membership in the INDIANA RECORDING CLUB contact: Eleanor Davies, secretary, 1729 East 77th Street, Indianapolis, Indiana 46240. Telephone (317)2517048.

Please send all changes of address and directory data to: Eleanor Davies, directory manager, 1729 East 77th Street, Indianapolis, Indiana 46240.

Your INDIANA RECORDING CLUB Board of Directors consists of Dennis Burcher, Pres.; Bill Tillett, Vice-Pres.; Eleanor Davies, Secretary; John Oliver, Treasurer; and Bill Endicott and Gene Scott, Members.

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## TO ALL NEW MEMBERS (In the United States)

When you receive your welcoming tape please return the accompanying postcard to the committee chairman: William Kearney, 2625 West Jefferson Road, Kokomo, Indiana 46901.

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**ADDRESS CHANGES** --all address changes MUST be sent to the Directory Manager at least one month before the effective date to ensure uninterrupted delivery of the Tape Squeal.

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# TRADING POST

Free notices for IRC members, concerning tape and related items to sell, buy, trade, etc.

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Rob Clark, S-34, is interested in joining active tape/slide show round robins, the faster the creeping the better.

Frank Phillips, D-60, will do high-speed mono-cassette copying at cost for club members. This will include a 60 minute cassette, labeling and soft poly box for \$2.00. 90 minute for \$2.50 each plus mailing which is currently 38¢ for First Class. He uses Telex equipment and has his own company which is known as "Aud-ionetics". Frank is with Fisher body but is getting ready for retirement.

Barbara Laatsch, D-66, wants an instrumental version of the "Lord's Prayer", also "Christian Island" by Keith Barry. Also, appropriate music, lyrics, and instrumentals for a slide show on our West and on Coastal States, such as sea songs, sound effects. Will send cassette and pay postage for duping.

Charles McGinnis, S-1 — has all of the following for sale. Write, tape, or phone for additional information:

Realistic stereo mic mixer, Shack cat. no. 33-1057A: \$30.

Realistic mini record player/changer: \$30.

Realistic dynamic microphone MC-1000, 1/4" plug, Shack cat. no. 33-990A: \$10.

Realistic tie-clip mic, mini plug, Shack cat. no. 33-1058: \$5.

Two Teledyne electret condenser cardioid mics, model MK-080, AA batteries, on-off switch, 18ft. cable, 1/4" plugs: \$30.

AC cassette bulk eraser: \$10.

Jack Bond, D-53, would be interested in a VHS round-robin. Right now can only respond in B&W, but who knows what the future will bring?

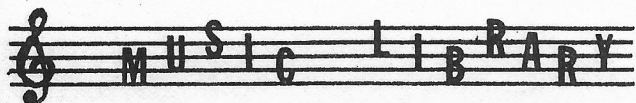
Bill Graves, D-52, has for sale a Quazar VK-100 B&W Video Camera with power adaptor and all necessary cords for \$175, including shipping and insurance.

Bill Graves, D-52, would also like to hear from all who would be interested in a Video Round Robin in VHS. Write or send a cassette tape.

(continued on Track 4)



Until the advent of the adapter, called the Image Translator, playing of many international tapes was possible only on a special machine that cost about \$3,000.



So many new tapes have been coming in for the Music Library, we have included a page of all the additions with this issue of Tape Squeal. *Ted Hering, #2111*, sent in these three 5" reels during the last month:

- #475. Hoagy Carmichael, "Mr. Music Master". A British Re-issue. Mono.
- #476. Spike Jones, "Omnibust". Spike at his zaniest. Stereo.
- #477. Stan Freberg, "St. George and the Dragonet" and other crazy stuff. Mono.

Three cassettes were also received:

- C-158. The Philadelphia Orchestra, "American Musical Nostalgia". A concert broadcast from Saratoga Springs. A 90 minute cassette. Donated by *Henry Furtak, #1088*.
- C-159. "Two Hearts in 3/4 Time" & "Sing Along with Max Bygraves". Donated by *Gladys Doerr, #2228*. (Dolby)
- C-160. Donna Parker & Bill Vlasak at the console of the Mighty Wurlitzer Pipe Organ in the Paramount Music Palace in Indianapolis. Donated by *John Oliver, #1337*. (Dolby)

**CREATIVE  
LIBRARY**

*Lonnie Smathers, #2125*, has donated a thirty minute travelogue of Rhodesia to the Creative Library. Order CR-98 for the 5" reel, or CR-C-98 for the cassette.

*Barb Laatsch, D-66*, has available a 22-page booklet on how to find beautiful scenes and interesting camera subjects in New England. Book is filled with directions and tips for good angles and lighting conditions for specific areas, and is available from Barb for \$4.00. A similar book on Nova Scotia is in progress.

## VOICE OF HISTORY

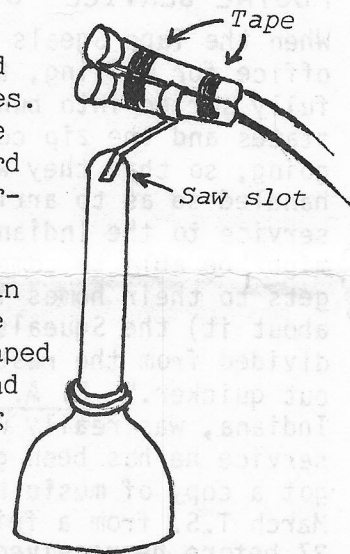
New cassettes received for the Voice of History Library:

- VH-98 Oklahoma State History
- VH-99 U.S. History and Churchill Funeral, made from old records, radio, etc., with notes and comments by the donor, *L. L. Richardson, #2218*. Not filtered.

### MIKE HOLDER TRICK.

I needed a mike stand for my dual stereo mikes. Local radio stores were out. I got the standard answer, "they are on order". I took a small hand-size "plumber's helper", sawed a slot in the top, placed my mike holder in the slot. Taped it with masking tape and painted the whole thing black. IT WORKS FINE, except when the sink stops up!

----Rob Clark, #2173



### TRADING POST (continued)

*John Berryman, D-15*, is looking for a few members to complete a video tape round-robin in VHS. We have interesting material on railroad museums, balloon flights, historical battlefields, electronic organs, etc. You name it. Drop a postcard.

*Ron Baron, D-70*, has for sale blank tape, 7" reel, 1800', Ampex 641, used, for \$55 postpaid for a case of 60. Also: new cassette, C-60s, screw-type housing, loaded with TDK tape, for \$26.50 postpaid for a box of 25.



## 44 Uses for a Recorder

from: NORMAN SALMONS

### ON NOT RETURNING TAPES

Most of the members of IRC have either heard about the problem of tapes not being returned or have experienced it first hand many times over. Are you aware of a club rule, practically never enforced, as clearly stated on Page 2 of the directory, that says you can be expelled from membership for failing to extend the courtesy of returning another taper's property?

IRC does its best to keep all members informed of its activities by way of our monthly bulletin, "Tape Squeal". Yes, even our blind members, which number between 50 and 60 at present, receive a taped version complete with the supplementary pages for the directory. It is a service that IRC has performed for many years and will continue to perform as long as it is desired by our blind members. But like some other features offered to members, it is abused by those who may be hardest to reach - the blind.

We automatically begin sending Tape Squeals on tape to a new blind member. They are told on their Welcoming Tape how the system works, that if they do not need the taped version, simply say so on the tape and return it. They are told also that they cannot receive the next issue of Tape Squeal on tape until their tape is received by the person who makes the copies.

We readily admit that the postal service is far from perfect; they wreck tapes and return the pieces, they just plain lose tapes, deliver them to the wrong addresses and the recipients do not forward them, but even all this "disservice" cannot account for the number of tapes that do not come back from blind members.

If you are a blind member and are wondering why you have not been receiving Tape Squeal on tape, check around and see if you have our tape. We'd like to have it back, even if you don't want us to continue to send it. Just maybe we could use that tape for someone else instead of having to buy another one. And the mailer and box too. Your cooperation will be appreciated.

10. Sound for Home Movies or Slides. Your movie or slide program will have a greater impact if synchronized with an accompanying music, sound effects, and voice commentary background tape. It is easy to provide this either with a simple tape recorder or fully automatic synchronization. The simplest way is merely to record your commentary on tape while monitoring the slides or movie program. You can do this leisurely and carefully, and in this way get a greater impact than you do talking off the cuff.

You can be as elaborate as you want to by using appropriate excerpts of music and adding sound effects. There are many sound effects records providing every variety of sound. The only problem is synchronization of tape and projector. With inexpensive sound synchronizers you can record signals on the tape that will key the slide projector and thus have a fully automatic slide show.

In the case of movies, the simplest way is to make sure that your sound background doesn't have sharp transitions. Fade the sound out and then in between scenes, allowing a few seconds of leeway so that if the sync. is not perfect, it will not matter. Or leave a few seconds blank in your narration between scenes so any departure from exact sync. won't be noticed. If you have a magnetic sound projector, the sound track can be dubbed from tape to magnetically stripped film and then the synchronization will always be automatic. (See the April/May 1981 T.S. for the article "How to Produce a Tape/Slide Show.")

11. Recording Lab and Workshop Notes. Some people have a foot-switch controlled recorder at their lab benches. Instead of making pencil notes of measurements, adjustments, etc., they simply depress the footswitch, announce the measurement or adjustment. Later they simply transcribe these to paper at their leisure. This cuts time by 50 percent or more. The same method could be used in workshops.

12. Comparing Notes with Fellow Hobbyists. Correspondence with other people in the same hobby can be difficult and time consuming because it usually involves passing on detailed technicalities and that means long letters

(continued on track 7)

INDIANA RECORDING CLUB ANNUAL FINANCIAL REPORT  
FEBRUARY 1, 1981 to JANUARY 31, 1982

CHECKING ACCOUNT BALANCE: Feb. 1, 1981

\$ 359.71

INCOME:

Membership dues	\$4,766.00	
Sale of Labels	75.25	
Music Library	95.50	
Old Time Radio Library	187.00	
Voice of History Library	6.50	
Creative Library	10.00	
Sale of Binders	9.90	
Coffee Can Fund	38.45	
Miscellaneous Income	149.42	
Mazie Coffman Fund	207.50	\$5,545.52
<b>TOTAL CASH AVAILABLE</b>		<b>\$5,905.23</b>

DISBURSEMENTS:

Printing Tapesqueal	\$1,766.20	
Postage for Tapesqueal	1,014.91	
Editor's postage and supplies	57.31	
Secretary's postage and supplies	106.34	
Treasurer's postage and supplies	188.37	
Welcome Committee postage	50.00	
Blind Service expense	173.90	
Printing applications	33.41	
Hobby Show expense	5.72	
Service policy, Editor's type- writer	70.00	
Miscellaneous expense	26.00	\$3,492.16
Transferred to Savings Acct.		1,637.50
<b>BALANCE IN CHECKING ACCT. Jan. 31, 1982</b>		<b>\$ 775.57</b>

SAVINGS ACCOUNT BALANCE: Feb. 1, 1981

\$1,316.50

Deposits thru Jan. 31, 1982

1,637.50

Interest income thru Dec. 31, 1981

31.73

\$2,985.73

Transferred to Liquid Green Fund

2,000.00

BALANCE Jan. 31, 1982

\$ 985.73

REUBEN BORN MEMORIAL FUND BALANCE: Feb. 1, 1981

\$3,461.69

Interest income thru Dec. 31, 1981

39.14

\$3,500.83

Transferred to Liquid Green Fund

3,000.00

BALANCE Jan. 31, 1982

\$ 500.83

LIQUID GREEN INVESTMENT FUND-Savings Account:

Transferred from Savings Account

\$2,000.00

Interest income thru Dec. 31, 1981

239.39

BALANCE Jan. 31, 1982

\$2,239.39

LIQUID GREEN INVESTMENT FUND- R. Born Fund:

Transferred from Born Fund

\$3,000.00

Interest income thru Dec. 31, 1981

453.36

BALANCE Jan. 31, 1982

\$3,453.36

TOTAL CASH AND EQUIVALENTS AS OF JANUARY 31, 1982

\$7,954.88

Physical Assets: 5 tape recorders, library tapes, supplies, mailing  
equipment, typewriters, cash and postage in libraries, Estimated

\$3,500.00

TOTAL CLUB ASSETS AS OF JANUARY 31, 1982

\$11,454.88

*John L. Oliver*  
John L. Oliver, Treas.

*R. S. Burch*  
Auditor



## INVENTORY TIME

Jerry Johnson, IRC #325, reminds everyone that NOW IS THE TIME to revise your list of audio equipment and check your model and serial numbers.

Many cities have departments in the police, or insurance companies, who will sell the "Brinks invisible marking system" for \$1, says Jerry. He also says that some hardware stores will allow you to mark your equipment for free, but you have to bring it into the stores.

Also, keep your valuables out of sight from your windows. As Jerry says, "I haven't got much, but don't want to let parasites get it for nothing!"

## SOUND EFFECTS TO THE RESCUE!

An enterprising young man in Hollywood has decided to do something for all those poor people out there who can't get anyone to buy their excuses. According to an article sent in by TED HERING, Mason Zelazny has designed, constructed, and installed in two popular clubs an 8-foot fully carpeted and soundproof stall in which the user can make phone calls complete with appropriate "excuse" background noises. "Stockyards" comes complete with the noise of thundering hoofs and raucous moos. "Church" has organ music and the murmur of a congregation. The popular "Auto-Shop" comes complete with a background of engines being revved, hammering of metal, and a mechanic swearing at his helper! A volume control lets the "Airport" roar of a jet plane, as well as paging of arrivals and departures, be manipulated for maximum effect, and "Rainstorm" can be anything from a gentle drizzle to a torrential downpour complete with thunder claps.

According to Zelazny, "Police Station" can be financially rewarding, for two college students called their parents and used the excuse of being in jail, whereupon the parents wired each student \$100. "War" might be one of the more unbelievable excuses, complete with gunfire, explosions, airraid sirens, etc. But, maybe someone will find it useful. Also available are "Hospital Waiting Room", "Restaurant", "Jungle Night", "Nursery", "Traffic Jam", "Department Store", "Office", and "Total Silence." In the planning stage are such worthwhile excuses as "Beauty Salon", "Bowling Alley", "Laundromat", and "Massage Parlor."

As useful as these excuse booths may be, don't make the mistake a couple in Texas did: he phoned her mother with an excuse for her, only to meet her as he came out of the booth and she prepared to enter to phone an excuse to him.

44 WAYS TO USE A TAPE RECORDER  
(continued)

which you never get around to writing. By using tape you can pass on a lot of information in a relatively short time and with relatively little trouble; and most find it easier to talk for 10 minutes than to write for a half hour. Furthermore, there's no problem reading the other person's handwriting--or yours, for that matter.

13. Who Said That?? Record snatches of voices of prominent people or friends and neighbors. Intersperse with some clues. Offer a prize for whoever identifies the greatest number.

14. What is it?? Record sounds or sound effects and offer a prize for the party guest who identifies the greatest number.

15. Where are we?? As a switch, record sounds occurring at various points, places and spots in town, see who identifies the most locations.

16. The Group Lecture. Put the tape recorder in an adjoining room. Take the guests in one by one. First person speaks simple declarative sentence into the recorder. Without hearing what was said before, the next person adds a phrase clause or sentence preceded by the word "if." Following person adds another preceded by "but"; next one adds "however"; next adds an "and" clause and so on. The resulting dissertation can be hilarious.

17. What Instrument is Playing?? Record short snatches of music played by various instruments or combination of instruments. See who can identify the most.

18. The Sound Mirror. Conceal a mike in the living room and record the party during some hilarious interval. Play it back later so all can hear how they sounded. Remember, though, that although "Candid Camera" may be popular, you may be taking your life into your hands if you record the wrong things at the wrong times.

BILL BAILIFF asks that all his many tape friends excuse him for being so late in answering. Various problems in the "Rebel's Corner" have been the reasons for the delays.

# SCHEDULED MEETINGS

Regularly scheduled meetings of the INDIANA RECORDING CLUB are held on the third Sunday of each month at 2:00 pm in the basement meeting room of the Leppert & Copeland Mortuary (740 E. 86th Street) in INDIANAPOLIS. *GUESTS ARE WELCOME!!!*

## MARCH 21ST

A DUBBING SESSION will be held, with IRC President Dennis Burcher presiding.

## APRIL 18TH

IRC Tech. Advisor GENE EATON will talk about equipment maintenance. A Q & A period will follow the presentation, and coffee and (maybe) cookies will find their way in there somewhere.

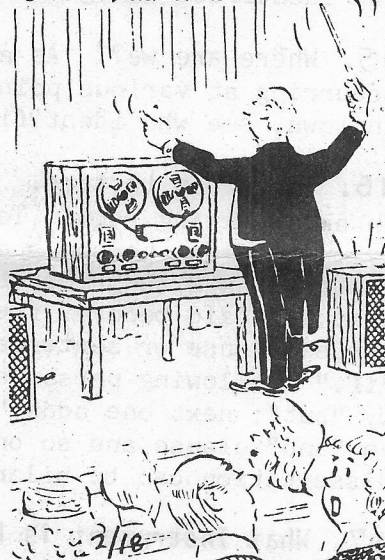
## MAY 16TH

A SURPRISE program has been planned by Vice President BILL TILLET. Be sure and be there, or you won't know what you missed!!

## STRICTLY BUSINESS

By DALE McFEATTERS

©Field Enterprises, Inc., 1982



"I know the tickets were only 50 cents but I still feel short-changed."

## WILL SIZE OF DIRECTORY TYPE BE REDUCED?

"Don't do it - don't go to the small print for the directory. The print in the directory is already too hard for some of us to read - we no longer have 20-20 sight". That was the plea of one of our members after he received last month's supplement page with the reduced size type.

Among many suggestions we have received was one about saving printing costs by having the size of print photographically reduced. This seemed to be a pretty good idea, so we tried it with the supplement page last month. We asked you to let us know what you thought of the idea, and you did - in no uncertain terms. The response to the photographic reduction was negative.

So, since we think we have the best directory of any tape club, and we want to keep it that way, be assured, all you of less than 20-20 vision, we will not reduce the size of the type in the new directory.

*mailed at Indy - March 9*

## MAILING LABELS

two color with IRC logo

Reel size: 3 ½ x 4 ¼

Cassette size: 2 ¼ x 4

Price - \$1.75/100 - either size

Order from VERN DAVIS

8805 Madison, #301A

Indianapolis, IN. 46227

When ordering, please specify size.

INDIANA RECORDING CLUB

Sharon Moore, Editor

4215 North Oxford St.

Indianapolis, IN 46205

Bulk Rate

U.S. Postage

PAID

Indianapolis, IN

Permit No. 5217

TO:

12-76  
Ronald Baron, 10  
2475 W. 16th St.,  
Brooklyn, New York, 11214

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